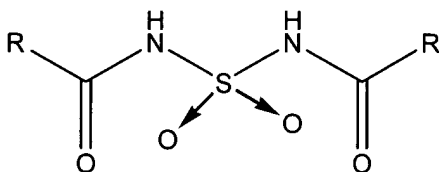


CLAIMS

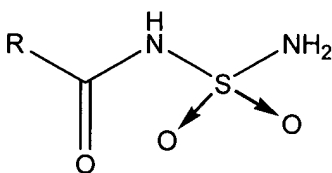
We claim:

1. Chemical compounds which when reacted with a source of peroxide such as hydrogen peroxide, sodium perborate, or sodium percarbonate will produce peroxy acids such as peroxypropionic acid (PPA) that can be used in various formulations including antimicrobial composition.
2. Structures under Claim 1 that include chemical structures as defined by the following schematic.



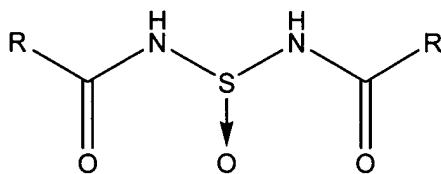
R= C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain.

3. Structures under Claim 1 that include chemical structures as defined by the following schematic.



R= C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain.

4. Structures under Claim 1 that include chemical structures as defined by the following schematic.



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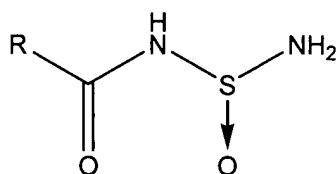
R= C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain.

1

5. Structures under Claim 1 that include chemical structures as defined by the

2

following schematic.



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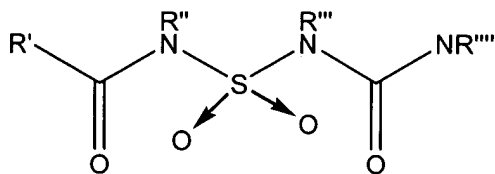
R= C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain.

1

6. Structures under Claim 1 that include chemical structures as defined by the

2

following schematic.



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R' = C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain

5

R'' = H or C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain

6

R''' = H or C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain

7

R'''' = C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain

8

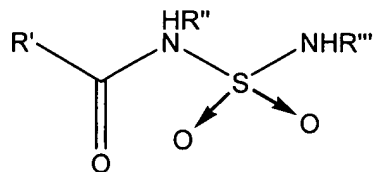
R', R'', R''', and R'''' may also contain heteroatoms

1

7. Structures under Claim 1 that include chemical structures as defined by the

2

following schematic.



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R' = C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain

5

R'' = H or C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain

6

R''' = H or C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain

7

R'''' = C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain

8

R', R'', R''', and R'''' may also contain heteroatoms

1

8. Compositions either in solution with various solvents including water, in gel,

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cream, lotion or suspension with various commonly available excipients and a

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source of peroxide utilizing the structures as described in claims 1, 2, 3, 4, 5, 6 or

4

7.

1

9. Compositions utilizing the structures as described in claims 1, 2, 3, 4, 5, 6 or 7

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either alone or in combination that can be packaged and stored for extended

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period (i.e., greater than one month) in a dry powdered form for reconstitution

4

with water or other suitable solvent at the site of application or use. The peroxide

5

source may be part of the dry mixture or added later at the time of product usage.

6

Other ingredients such as buffers, sequestering agents, and surfactants may be

7

added to improve the antimicrobial efficacy of the formulation.